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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,325	10/26/2006	Michael A. Reid	65583(50024)	1667

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EXAMINER

WRIGHT, GIOVANNA C

ART UNIT	PAPER NUMBER
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3672

MAIL DATE	DELIVERY MODE
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10/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,325

Applicant(s)

REID ET AL.

Examiner

Giovanna M. Collins

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.9, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 8 and 11.8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/27/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

1. The disclosure is objected to because of the following informalities: The section headings have been omitted.

Appropriate correction is required.

Drawings

2. The drawings are objected to because all of the figures shown should be described in the Brief Description of the drawings. Therefore, "Figure 1 " should be changed to - - Figures 1(a) and (b) - - and "Figure 2" should be changed to - - Figures 2(a) and (b) - - . Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 1 is objected because the claim recites the limitation "the string" in line 3. There is insufficient antecedent basis for this limitation in the claim, as this limitation has not been previously recited.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5,9-10,12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells 2033563 in view of Stanley et al. 2698586.

Referring to claims 1-5, and 9 Wells discloses (fig. 5) an high lift injection valve for use in a downhole tool, the valve comprising a substantially tubular body including a first end for connection to a wireline lock or packer, the first end having a first inlet (at 25) communicating with the string providing a flow path of a first cross-sectional area; one or more ports (34c) located on the body,; a sealing assembly comprising poppet (36a) with a first sealing surface moveable in relation to the body to open and close the ports and a seat (at 34a) on the inner surface of the body providing the second sealing surface; wherein fluid flow through the inlet moves the seal cap to open the valve and a spring (37) enclosed within a housing. Wells does not disclose the ports have a

Art Unit: 3672

combined cross sectional area greater than the first cross sectional area. Stanley teaches that ports (30) having a combined cross sectional area greater than half the first cross sectional area of a tubular helps to reduce the pressure drop through a valve (col. 4, lines 21-27). As it would be advantageous to reduce the pressure drop which helps make the valve easier to open, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the valve disclosed by Wells to have the ports have a combined cross sectional area greater than half the first cross sectional area of tubular body in view of the teachings of Stanley.

Referring to claim 10, Wells discloses a method of injecting fluid into a well bore, the method comprising the steps: locating an injection valve (at 36a) on an anchoring device at an end of a work string running the string to a required depth; sealing (at 30) the string to a wall of the well bore using the anchoring device; passing fluid at a first pressure through the work string; and using the fluid to open the valve (by forcing element 36a down) and thereby inject fluid through an unimpeded path (at 34c) through the valve into the well bore. Wells does not disclose maintaining fluid pressure at the first pressure. Stanley teaches that ports (30) having a combined cross sectional area greater than half the first cross sectional area of a tubular helps to maintain a fluid pressure at a first pressure when passing through a tubular (col. 4, lines 21-27) which. As it would be advantageous to reduce the pressure drop which helps make the valve easier to open, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the valve disclosed by Wells to maintain the fluid pressure at the first pressure in view of the teachings of Stanley.

Referring to claims 11.1-11.7 and 11.9, Well discloses the injection valve (at 36a) is according to claims 1-7 and 9.

Referring to claim 12, Wells discloses trapping pressure (at 37).

Referring to claim 13, Wells discloses performing pressure tests above the valve (page 2, col. 2, lines 45-53).

6. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells 2033563 in view of Stanley et al. 2698586, as applied to claim 1 and further in view of O'Donnell 2161309.

Referring to claims 6-7, O'Donnell does not disclose a pressure release means. O'Donnell teaches a shear ring (21) which is rated to shear at a desired pressure, where the shear ring that holds a tool in place until it is ready to be released (col. 2, lines 23-36). As it would be advantageous to have a means to ensure the valve is not opened too early, it would be obvious to one of ordinary skill in the art to further modify the valve disclosed by Wells, as modified by Stanley, to have a shear ring in view of the teachings of O'Donnell.

Allowable Subject Matter

7. Claims 8 and 11.8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 571-272-7027. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Giovanna Collins Wright
Patent Examiner
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